* HYPERKALEMIC M. ACIDOSIS

> 8.0 meq/L : diastolic ARREST

NNL LIVE MEDICINE NORCET 10.0 K+ ∫ H+ : inability To excrete

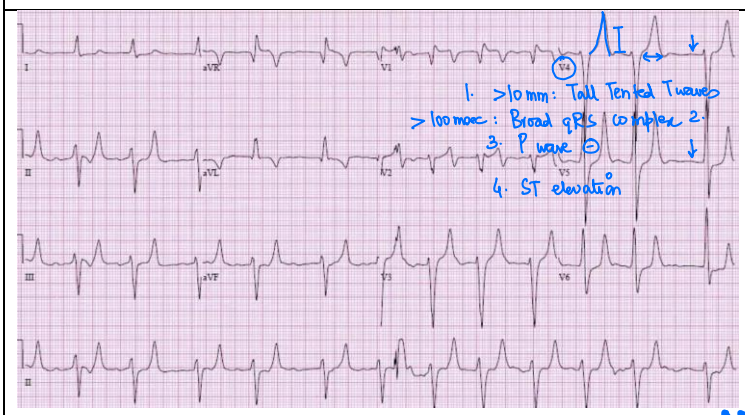
1. A 30-year-old patient with acute kidney injury is detected to have serum potassium of 7.5 meq/L. Which of the following is the most effective intervention to lower elevated serum potassium?
   a. 10 units of regular insulin in 50 ml of 50% dextrose infusion
   b. Salbutamol 5 mg nebulization diluted in 5 ml normal saline
   c. 10 ml of 10% calcium gluconate IV over 10 minutes with cardiac monitoring
   d. 8.4 g of Patiromer diluted in 100 ml DW via NG tube

10ml

DOC Cal. gluconate OVER 10 minutes: UNDER cardiac monitoring.

Best to reduce elevated serum potassium

10 U INSULIN REGULAR diluted in 50ml of 25% DEXTROSE



endogenous insulin + (0.5–1 meq ↓ / HOUR) REDISTRIBUTION

Salbutamol 10mg diluted c̄ NS Nebulization

S/E palpitations

$\beta_2 > \beta_1$ REDISTRIBUTION

FUROSEMIDE : KALIURIA : loss of K+

K+ BINDER → PATIROMER* 8.4g of 100 ml DW: NG TUBE

NOVEL

SODIUM ZIRCONATE*

SODIUM POLYSTRENE SULPHONATE K-BIND

~~HEMODIALYSIS : Refractory HYPERKALEMIA~~

Not routinely used in management of dangerous hyperkalemia

→ SODA BICARBONATE

Death in Hyperkalemia occurs due to

↳ DIASTOLE Cardiac ARREST

(n) ANION GAP ⇒ [+] − [−]

6–12 meq/L $[Na^+] - [Cl^- + HCO_3^-]$

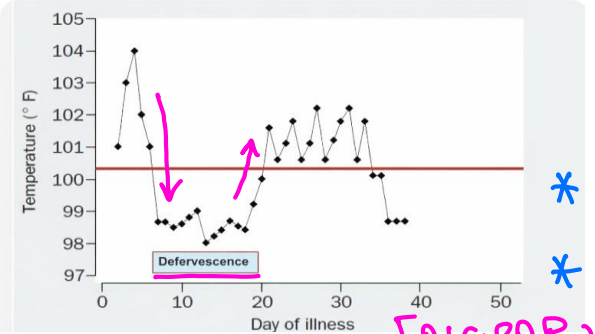
$[140] - [106 + 24] = 10$

* AZOTEMIA = BUN↑ CR↑

* URAEMIA = " " + signs/symptoms

HAGMA ⇒ KULT : KETOACIDOSIS: STARVATION, D.K.A
Aspirin ++ URAEMIA: Acute TUBULAR NECROSIS, Acute glomerulonephritis
LACTIC ACIDOSIS: SHOCK, Co poisoning, metformin
TOXINS: methyl alcohol poisoning
eGFR < 30ml/min

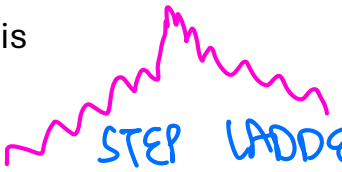
2. Following is a graphic representation of a farmer admitted to the medicine ward with fever with Jaundice. What could be the possible diagnosis?



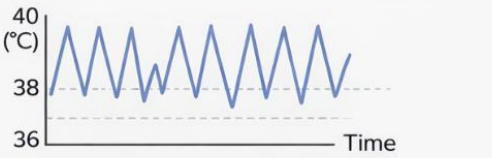
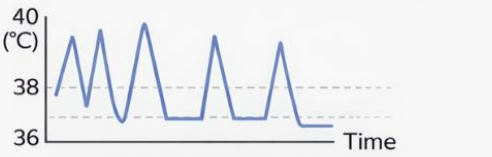
RAT URINE
DRINKING H_2O

* MUMBAI : FLOODS + : FEVER + Jaundice
* FARMER : FEVER + JAUNDICE

~~a.~~ Cerebral malaria FALCIPARUM
b. Brucellosis
c. Leptospirosis
~~d.~~ Typhoid


STEP LADDER


Biphasic FEVER
Saddle back

Continuous fever	 Temperature continuously remains above normal, with daily fluctuations < 1°C.	• Typhus • Viral pneumonia
Remittent fever	 Temperature continuously remains above normal, with daily fluctuations ≥ 2 °C.	• Typhus • Sepsis • Tuberculosis • Rheumatic fever
Intermittent fever	 Temperature remains above normal only for a certain period, later returning back to normal.	• Pleuritis • Sepsis

BRUCELLA : * UNDULANT FEVER
* NON PASTEURIZED MILK CONSUMPTION
* MALTA FEVER

LEPTOSPIROSIS: FEVER + Jaundice + AKI
* floods in mumbai

* FARMER

Typhoid : Fever + Hepatomegaly, WIDAL O : > 1/100 H : > 1/200 TITER

CEFTRIAXONE + Azithromycin iv

Biphasic fever	 Fever that breaks and returns twice a day	• Yellow fever • Dengue * • Malaria • Typhoid • Leptospirosis *
Undulant fever	 Temperature continuously remains above normal, with daily fluctuations ≥ 2 °C.	• Brucellosis
Recurrent fever	 **Relapsing fever:** Days of fever followed by an afebrile period of several days and then a relapse into additional days of fever, usually after 14–21 days. **Pel-Ebstein fever:** Fever lasting 1–2 weeks followed by 1–2 weeks of an afebrile period.	• Pleuritis • Sepsis

DSS : capillaritis → PLEURAL effusion, Ascites, BP ↓↓

* HEMATOCRIT : ↑

BREAKBONE FEVER

(myalgia)

Dengue: 1,2,3,4 (Aedes)

NS-1 antigen

MAC ELISA IgM/IgG

Rx : PCM

Cox-1 Θ : CI

Cox-3 Θ

DHF: Torniquet : MAP : BP CUFF x 5 min >20 petechiae/sq inch : Cubital fossa

3. 60-year-old smoker with COPD GOLD stage II is started long term oxygen therapy at 6L/min. The nurse notes pulse 90/min, BP 140 / 100 mm Hg , RR 16/min, sp02= 98%. What should be the priority nursing action?

TARGET spO2 : 88-92%

Ex N pCO_2 ↑

→ a. Ask technician to urgently procure BiPAP machine for NIV

b. Reduce oxygen flow to 2L/min

→ c. Give iv Hydrocortisone 100 mg and nebulization with Formoterol on physician orders

d. Encourage patient do deep diaphragmatic breathing

DF : NS-1 antigen, ELISA : PCM

DHF : TORNIQUET : platelet Tx : < 10,000 platelet/cu. mm

DSS : HEMATOCRIT ↑ > 20% OVER Baseline : NS crystalloids

COPD : global initiative for COPD GOLD

I : MILD : $FEV_1/FVC < 0.7$, $FEV_1 > 80\%$

II : MOD : " " " , $FEV_1 = 50-80\%$

$FEV_1 = 30-50\%$

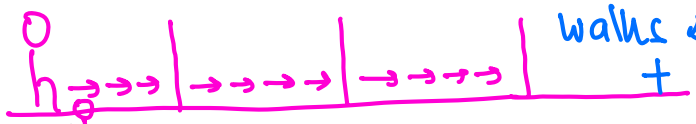
III : SEVERE : " " " , FEV_1 = 30 50%

IV : VERY SEVERE : " " " , FEV_1 < 30%

mMRC modified medical Research council, grading of dypnea

I: 

II: 

III: 

IV: 

4. Elevated jugular venous pressure is most commonly caused by which of the following?
   a. Hypervolemia
   b. Fluid overload
   ~~c.~~ Hypovolemia
   ~~d.~~ Dehydration

CHF : CO ↓ → GFR ↓ → RAAS + → ALDOSTERONE ↑ → * Salt +++ * H_2O ++ → HYPERVOLEMIC HYPONATREMIA *

acute pulm edema
L LASIX
M morphine
N NITRATES
O Niv
P

COPD
1. L.T.O.T
2. Varenicline + Nicotine lozenges
3. LABA + LAMA + ICS ⇒ ↳ MDI
   INDACATEROL — TIOTROPIUM — BUDESONIDE, FLUTICASONE

5. A nurse is caring for a GBS patient on a mechanical ventilator. Mode selected is Assisted controlled mechanical ventilation. ABG shows pH = 7.50, pCO_2 = 30 mmHg and HCO3 = 20 meq/L. Which laboratory value is most likely to be observed in this condition?
   a. Magnesium level = 1.8 mg/dL
   b. Sodium level = 145 mEq/L
   c. Potassium level = 3.0 mEq/L
   d. Phosphate level = 3.0 mg/dL

Partially compensated R. alkalosis

pH α 1/K+ (=)

Na+ α 1/K+ — aldosterone

U.osm α 1/P.osm — ADH

AKI = HYPERCHLOREMIC M. ACIDOSIS

* CO_2 ↓: R. alkalosis ⇒ HYPOKALEMIA

ANT WALL STEMI

6. A patient is prescribed nitroglycerine infusion at 15 mcg/ min. The solution available is 50 mg nitroglycerine in 500 mL D5W. What should be correct infusion rate in mL/ hr?
   a. 99 mL/hr
   b. 19 mL/hr
   c. 90 mL/hr
   d. 9 mL/hr

$$\text{Rate (mL/hr)} = \frac{\text{Dose (mcg/min)} \times 60}{\text{Concentration (mcg/mL)}} = \frac{15 \times 60}{50 \times 1000 / 500} = \frac{900}{100}$$

15 x 60 / 50 X1000 / 500 = 900 / 100

NTG Ci : SBP < 90/60
* INF WALL MI
S/E: VD of brain BV = STRETCHING OF DURA ⊕. HEADACHE
Angina or MI

SSRI

7. 26-year-old female on paroxetine presents with inability to breath during a panic attack. Her ABG report shows:
   pH = 7.55 ↑
   $PaCO_2$ = 25 mmHg ↓
   HCO_3^- = 22 mEq/L (N)
   R. alkalosis
   Which of the following is correct about this patient
   a. Respiratory alkalosis, partially compensated
   b. Respiratory alkalosis, uncompensated
   c. Respiratory alkalosis, fully compensated
   d. Respiratory alkalosis with metabolic alkalosis

Panic attacks/ GAD : > 6 months
1. BZD : ETIZOLAM, ALPRAZOLAM : < 2 weeks
2. SSRI : PAROXETINE
3. CBT

DELIRIUM TREMENS : > 48 HOURS of alcohol intake cessation

* L.O.T
LIVER safe drugs

LORAZEPAM
OXAZEPAM
TEMAZEPAM

D.T ⇒ Restraint the pt, lorazepam + THIAMINE

alcoholic hallucinations
1. Visual H ⇒ MICROPSIA
2. Tactile H ⇒ FORMICATION
3. auditory H ⇒ second person, THIRD person

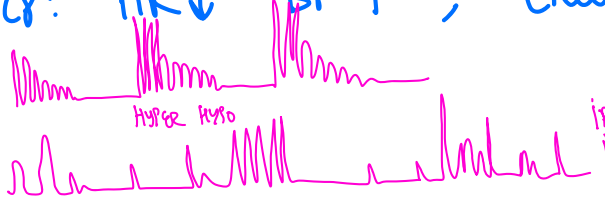
8. A patient is suspected to have tuberculosis and the physician orders a Mantoux test. The nurse prepares 0.1 mL of purified protein derivative. By which route should it be administered?
   a. Intradermal
   b. Subcutaneous
   c. Intramuscular
   d. Intravenous

false ⊕ Mx
BCG, leprosy
false ⊖ Mx
- AIDS
- STEROIDS
- B.T.
- MEASLES
- PEM

PROGNOSTIC Test
Mx ⊕ = EXPOSURE TO TB, ≥10 mm
Mx ⊖ = SUSCEPTIBILITY

9. Cushing's triad, a late sign of increased intracranial pressure, includes which of the following?
   a. Widened pulse pressure, tachycardia, irregular respirations
   b. Hypertension, bradycardia, irregular respirations
   c. Hypotension, tachypnea, bounding pulse
   d. Hypertension, tachycardia, rapid respirations

↑ICP: HR↓ BP↑, Cheyne stokes/ BIOT's



10. A patient has a fever of 101°F and is prescribed IV Meropenem. What should be the nurse's priority action before administration?
   a. Administer antibiotics immediately
   b. Give antipyretic before starting antibiotics

CLABSI ⇒ S.AUREUS : DAPTOMYCIN *
VAP ⇒ Pseudomonas : MEROPENEM

Pseudomonas AERUGINOSA

Hospital acq. pneumonia: S.AUREUS → LINEZOLID *
↳ >48 HOUR of admission

c. Obtain culture samples before giving the first dose of Meropenem
d. Start IV fluids and observe the patient's response of antibiotics

S.S.I: S.AUREUS → MUPIROCIN Topical CREAM

↓

11. A patient undergoing chemotherapy presents with Haemoglobin 8.6 g/dL and platelet count 18 × 10^3/µL. Which parameter requires immediate monitoring and intervention?
a. Thrombocytopenia with platelet count 18 × 10^3/µL
b. Haemoglobin 8.6 g/dL
c. White blood cell count within normal limits
d. Serum electrolytes

PETECHIAE → PURPURA → EPISTAXIS, HEMATURIA HEMOPTYSIS
(non blanching) palpable bleed in skin

12. A patient undergoing haemodialysis develops drop in blood pressure from 150/100 mmHg to 90/60 mmHg, accompanied by tachycardia. What should be the nurse's first immediate action?
a. Administer IV dopamine
b. Inform physician
c. Reduce ultrafiltration and place patient in Trendelenburg position
d. Administer IV fluids (normal saline/albumin)

Q:
ANT EPISTAXIS: FINGER Nail Trauma > DRY HEAT
POST EPISTAXIS: HTN
TROTTER POSITION: SIT-UP ± leaning forwards
ICE PACK ON NASAL BRIDGE

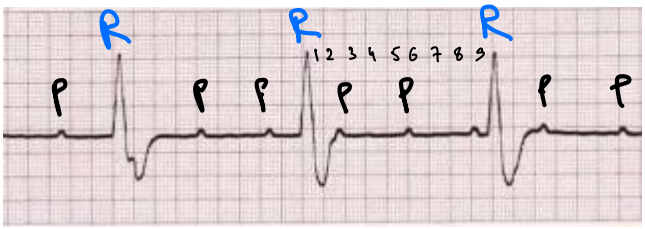
* MC complication of HD = HYPOTENSION — Rx
1. slow the process
2. position change

SITE of HD
✓ AKI = IJV: (double lumen catheter)
✓ CKD = @ 3/week, session = 4 HOURS

↳ RADIAL A – CEPHALIC VEIN ↑ V.Return to ♥
(CIMINO- BRESCIA FISTULA)

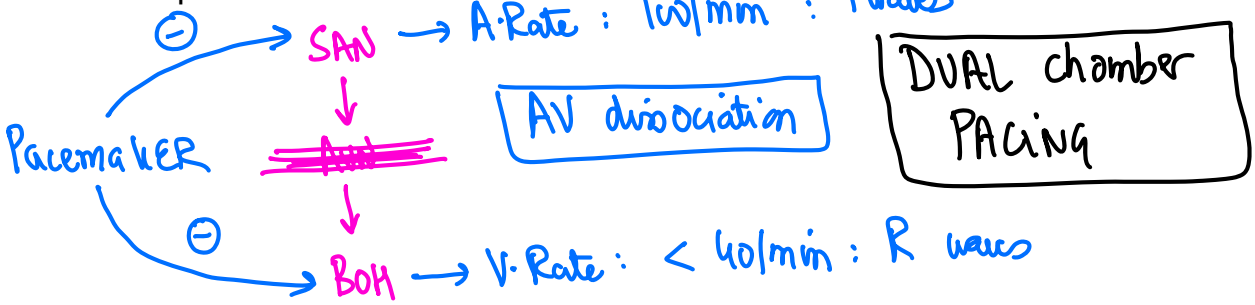
* MC complication of Recurrent HD ⇒ accelerated atherosclerosis

13. A 65-year-old patient with a history of diabetes mellitus and coronary artery disease presents with dizziness and near syncope. ECG shows the following, what is the most appropriate management? 300/9 : <40 bpm



THIRD DEGREE H.B
COMPLETE H.B
STOKES ADAM SYN^N
P wave, R wave donot match

a. Amiodarone
b. Transcutaneous pacemaker insertion
c. Anticoagulant therapy with continuous observation
d. Atropine



14. A patient with rheumatoid arthritis is presented with a history of gastric ulcer. Which of the following drugs is most appropriate for this patient?

a. Etoricoxib Cox-2⊖
b. Naloxone
c. Acetaminophen Pcm
d. Ibuprofen

OA → DIP involvN

* PIP, MCP, wrist DIP PIP
* morning stiffness
* Anti C.C.P MCP

15. Which of the following is not typically seen in a construction worker with heat stroke?

a. Sweating
b. Mydriasis sym⊕
c. Rapid pulse
d. Hot dry skin

↳ CORE TEMP >40.5°C + altred mentation

Cyclic citrulline peptide

RHEUMATIC ARTHRITIS	RHEUMATOID A
CHILD, R. SORE THROATS	YOUNG ♀, morning stiffness
ASO TITER > 200 IU/mL	PIP, MCP, WRIST: B/L
ANKLE → knee → elbow	anti CCP
	R.. MTX + Sulphasalazine

migratory POLYARTHRITIS

Rx.. ASPIRIN

Rx: + Hydroxychloroquine

TRIPLE THERAPY

16. A patient is prescribed an inhaler with 200 puffs. The order is 2 puffs every 6 hours, for how many days will one inhaler last?

a. 20 days
b. 25 days
c. 28 days
d. 30 days

200 / * 8 puffs/day

Malignant HYPERTHERMIA : Sch, Halothane, Ryanodine # receptors

muscle CONTRACTION : TEMP ↑ *

Rx: → DANTROLENE sodium

17. Which of the following is not correct about Diabetes insipidus?

a. Orthostatic hypotension
b. Polydipsia with polyuria
c. Relative hypernatremia
d. Isosthenuria

ADH ↓
- POLYURIA, POLYDIPSIA
- OH
- Na ↑

↓ inability to concentrate urine

SIADH ⇒ EUVOLEMIC HYPONATREMIA

18. Nurse notices that a DVT patient receiving heparin has an aPTT of 85 seconds. What is the most appropriate next action?

(n) = 30-45 seconds

a. Hold the next dose of heparin
b. Check for evidence of blood loss from nose, in urine and in stool
c. Continue the same heparin dose
d. Administer vitamin K on physician orders

↳ warfarin

19. A COPD patient develops an exacerbation due to poor AQI. ABG shows pH=7.2, pCO2 = 60 mm Hg and HCO3= 28 meq/L. Which intervention is the most appropriate for this case?

Pc Respi acidosis

a. Start NIV
b. Administer high flow oxygen with CPAP
c. Administer high flow oxygen with Venti mask
d. Start IV hydrocortisone with nebulization with Foracort

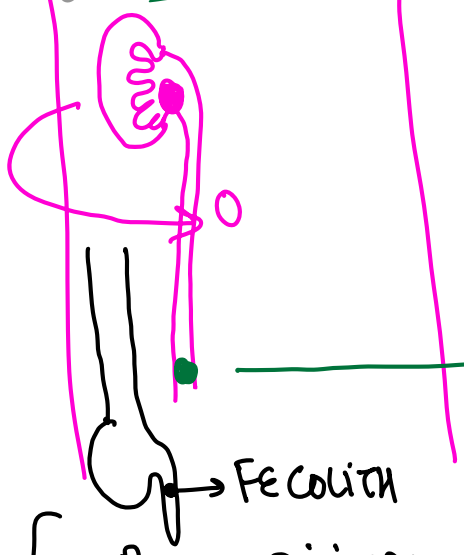
oat cell ca lung
↳ SIADH
TBW ↑
TBS (n)
EUVOLEMIC
Na ↓

CHF, C.L.D, C.K.D, CIRRHOSIS
TBW ↑↑
aldosterone ++
TBS ↑
HYPERVOLEMIC HYPONATREMIA

CNS bleeding
Prothrombin

acute cholecystitis

RUQ PAIN, MURPHY SIGN
FAT RICH DIET
FAT, FEMALE, FORTY, FERTILE



Renal colic

FLANK PAIN → Umbilicus

VRETERIC colic

FLANK PAIN → Tip of penis
Vulva

FECOLITH

murphy TRIAD

1. PERIUMBILICAL PAIN → R.I.F pain
   acute appendicitis
2. vomiting
3. FEVER

INR ↓ 1 , PT = 1-16 sec 15 sec : warfarin toxicity

20. Before starting dialysis, a patient in AKI is found to have a potassium level rise to 6.8 mEq/L. What is the immediate management?
    a. Administer calcium gluconate IV
    b. Start insulin drip in 25-50% dextrose
    c. Administer 40 mg furosemide
    d. Restrict IV fluids

21. Which of the following is the most common side effect of nitroglycerin?
    a. Bradycardia
    b. Headache
    c. Nausea
    d. Palpitations

CBD gall stones in biliary path ↓ Choledocholithiasis

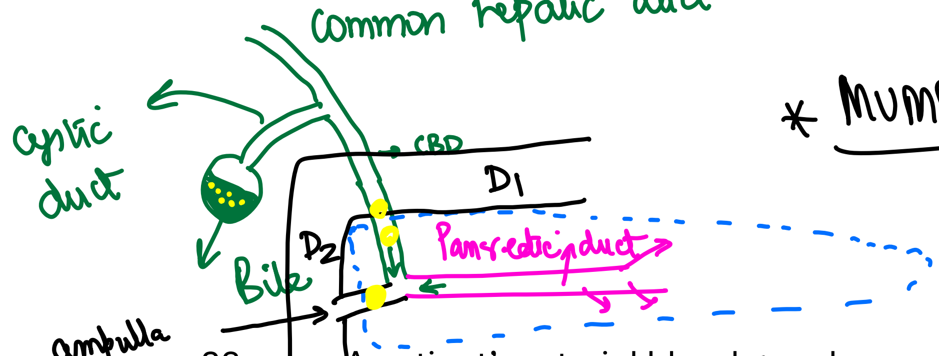
22. A patient is suspected of having acute pancreatitis, which laboratory values are most commonly elevated?
    a. Amylase and lipase
    b. Serum bilirubin
    c. ALT and AST
    d. Creatinine

Ch. pancreatitis : alcohol intake

alcoholic * Epigastric PAIN Radiating To BACK

Acute PANCREATITIS → IOC: CECT Abdomen

S. lipase > S. amylase



* MUMPS: Amylase ↑

23. A patient's arterial blood gas shows pH 7.50, $PaCO_2$ 28 mmHg, HCO_3^- 24 mEq/L. Which of the following is the most likely cause?

R. alkalosis Uncompensated

a. Acute exacerbation of COPD — CO_2 ↑
b. Pulmonary embolism → CO_2 ↓ (circled)
c. Status asthmaticus — CO_2 ↑
d. Obesity hypoventilation syndrome — CO_2 ↑

TYPE II RF | R. ACIDOSIS
1. FLAIL CHEST, STATUS Asthmaticus, Acute exac ch. bronchitis
2. Diaphragmatic paralysis ⇒ GBS, MOTOR NEURON DISEASE, CERVICAL SPINE # C3,4,5

24. A patient with CKD presents with hyponatremia. What is the most appropriate initial nursing intervention?

a. Administer 0.9% NS
b. Restrict fluids (circled)
c. Administer 3% hypertonic saline (SEIZURES
d. Start diuretics — LASIX, spirinolactone, THIAZIDES

HYPERVOLEMIC HYPONATREMIA: CHF, CLD: Ascites, CKD
└ RESTRICT fluid intake, DIURETICS

25. A patient with central diabetes insipidus receives vasopressin. What is the expected effect on urine?

a. Urine volume remains high
b. Urine specific gravity rises
c. Urine volume does not change
d. Urine specific gravity lowers

Na ↓ < 125 meq + SEIZURES, ALTERED MENTATION

3% Saline

acute: 3% saline Bolus 100 cc

chronic: 3% saline via INFUSION PUMP

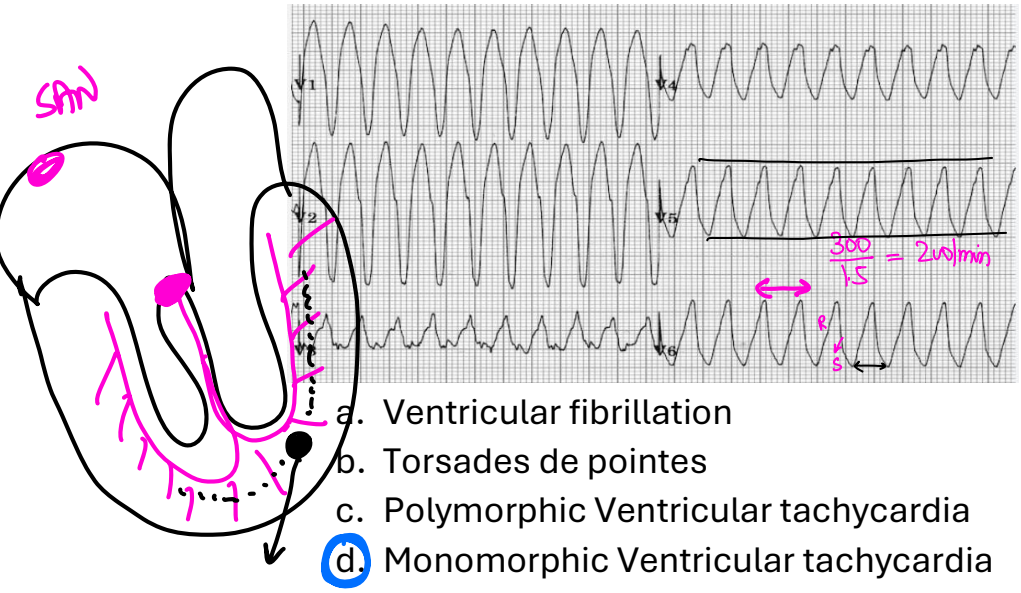
Rise/day = 6–8 meq/dL

FAST infusion ⇒ Osmotic demyelination syndrome
CENTRAL pontine myelinosis

STROKE like features +

> 48 HOURS: ABULIA, QUADRIPLEGIA, BRISK DTR
MRI head: TRIDENT SIGN in brain stem

26. A patient is on continuous ECG monitoring while receiving treatment for NSTEMI. Based on the rhythm displayed on the ECG monitor, which dysrhythmia is the patient experiencing?

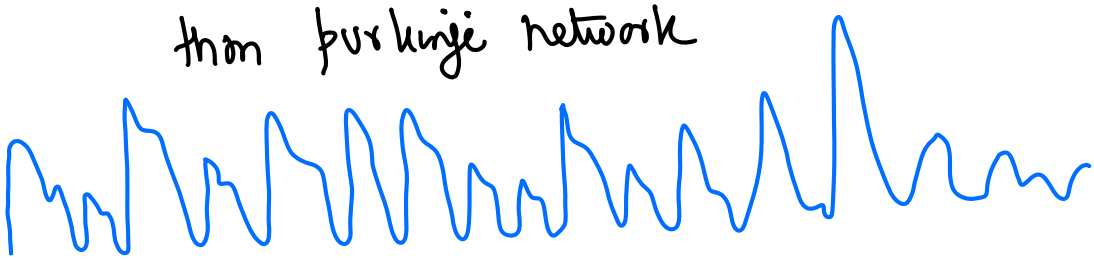


a. Ventricular fibrillation
b. Torsades de pointes
c. Polymorphic Ventricular tachycardia
d. Monomorphic Ventricular tachycardia

Broad RS Tachycardia
monomorphic V.T
≤ 90/60 : → defibrillation
> 90/60 ↓
[amiodarone
c 5% DEXTROSE

SAN

ectopic focus : 200/min
INTERMYOCYTE CONDUCTION SLOWER than purkinje network



TDP/POLYMORPHIC VT
Why? : K ↓, Mg ↓
Class IA, IC drugs
Quinidine, procainamide, disopyramide
ASTEMIZOLE, TERFENADINE
ERYTHROMYCIN + KETOCONAZOLE
CISAPRIDE
⊖ NIFEDIPINE/SUMO
⊖ MEFENAMIC ACID
⊖ LIVER

Rx. BP ↓↓ = defibrillation
BP > 90/60 = Mg SOY IV

Mg SOY: 1. SEVERE Acute Asthma smooth muscle airway
(Mg++ antagonist ✓) 2. ECLAMPSIA smooth muscles BV

Cett

3. Torsades de pointes

4. PEM gd IV MARASMUS / kwashiorkor

Mgt: C.K.D

↑ Ht
↑ Kt
↑ Mg+
↓ Calcium
vit D3 ↓ synthesis

27. Name the device shown below and medical condition used for?

O.S.A
obesity, craniofacial dysmorphism
SNORING ++++ : APNEA : Snoring ++++

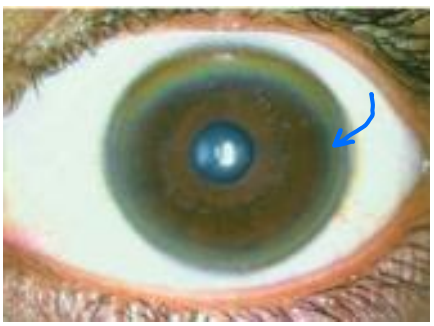
1. Excessive sleepiness
2. HTN 3. LIBIDO ↓, ERECTILE ↓ dysfunction

a. CPAP for OSA
b. Bi-PAP for OSA
c. CPAP for high altitude pulmonary oedema
d. Bi-PAP for high altitude pulmonary oedema

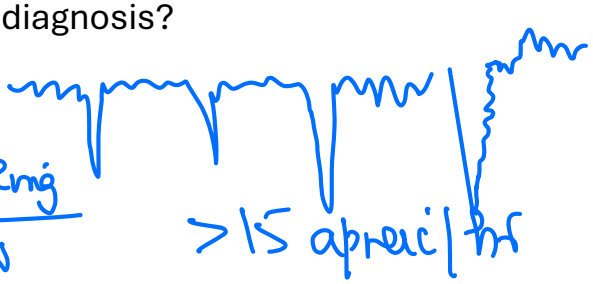
Pharyngeal dilator muscles Tone ↓

Polysomnography : ECG, EEG, EOG, EMG, SpO_2

28. A patient with jaundice and tremors presents with the following finding in the eye. What will be nursing diagnosis?



KAYSER FLEISCHER Ring
BROWN-GREEN



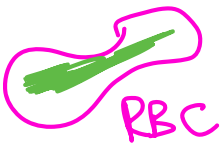
>15 apneic/hr
C.P.A.P

a. Huntington's chorea
b. Wilson's disease
c. Heavy metal poisoning
d. Sydenham's chorea

AR, CONSANGUINEOUS MARRIAGE
* ATP 7B gene, ch 13 #
* Hepatobiliary EXCRETION of copper

pathogenesis: DEFECTIVE

<10yr:  : CIRRHOSIS
- Ascites
- PORTAL HTN: Esophageal varices



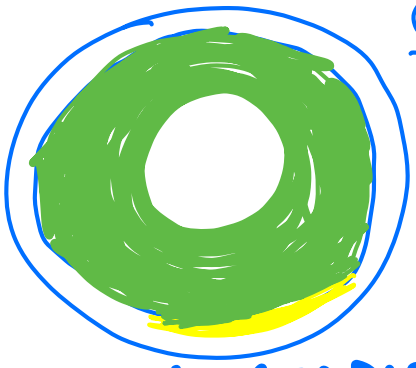
> loy: BASAL GANGLIA : BRADYKINESIA, RIGIDITY, TREMORS

eye: KF RING

29. Three days after being initiated on a certain drug, a patient developed the following lesions. Which of the following drugs was likely started for this patient?

PURPLE TOE Syndrome

a. Warfarin
b. Aspirin
c. Atorvastatin
d. Levofloxacin



Coronary A
LDL ↑
DM, HTN
SMOKER

* CHRONIC STABLE ANGINA
CHEST PAIN ON EXERTION
1. TMT: ECG: ST ↓
2. C.C.T.A Coronary CT angiography
Rx: STATIN + Aspirin 75 mg

MI: LV STASIS CLOTS +
LV ANEVRYSM
WARFARIN LIFE long BASIS

PURPLE GLOVE syn
phenytoin extravasation

30. What does I.P in the following indicate?

a. Intellectual property
b. Indian pharmacopoeia
c. Industrial production
d. International pharmaceuticals

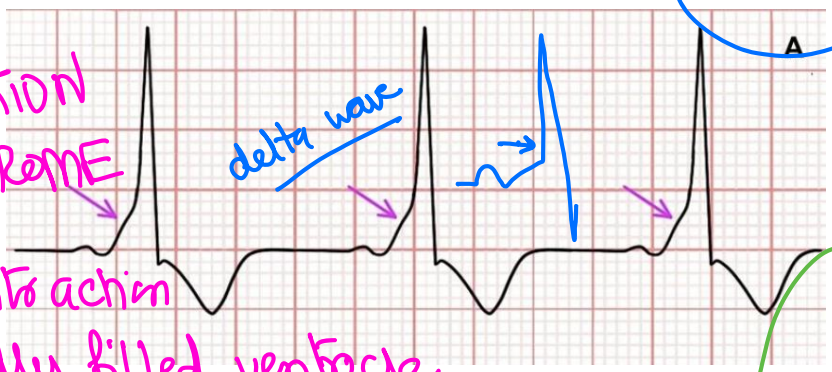
PURPLE GLOVE & STOCKING APP
* HUMAN PARVO VIRUS B19

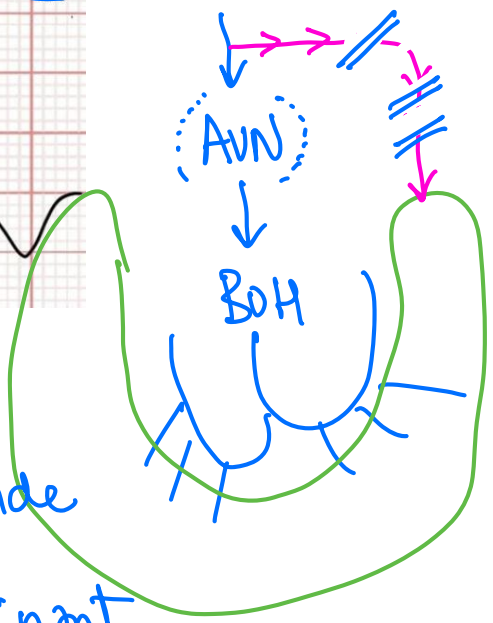
Erythema infectiosum

31. A 20-year-old man is brought to the emergency following an episode of syncope during his morning walk. His blood pressure is 80/60 mmHg. His present ECG is given below. Which is the most appropriate treatment for the patient?

W·P·W

PRE-EXCITATION SYNDROME





Early contraction of partially filled ventricle

a. Lignocaine
b. Diazoxide
c. DC cardioversion
d. Radiofrequency ablation

DOC ↓ Flecainide

family H/o sudden cardiac death in sibling : autosomal dominant

32. A 20-year-old woman has complaints of reduced hearing on her right side. You perform a diagnostic test using the following instrument. What is the name of this instrument?

PURE TONE Audiometry

CHL ↓ * CSOM

SNHL ↓ * VIII (N) # * cochlea #

OPTIC NEURITIS / MULTIPLE SCLEROSIS

a. Digital audiometer
b. Tympanometry
c. Visual evoked potential
d. BERA Brain stem evoked auditory Response

VIII (N): STREPTOMYCIN, ACOUSTIC NEUROMA

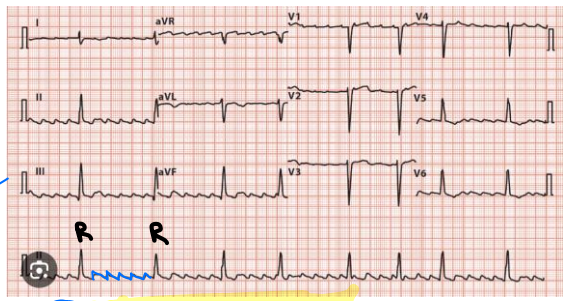
Cochlea # hair cells

* TUNING FORK : Y : 512 Hz

* PRESBYCUSIS : age induced SN hearing loss

↳ HEARING AIDS

33. What is the most likely diagnosis for the below given ECG image?



SAW TOOTH

EEG = REM sleep
ECG = Atrial flutter

a. Atrial Flutter
b. Atrial Fibrillation
c. Ventricular Fibrillation
d. None of the above

Sleep
* NREM phase
* REM phase
paradoxical sleep

RACE
Rate control : Esmolol
Anticoagulation: Apixaban
Chemical C : Amiodarone
electrical C: Syn. DC SHOCK: 25–50 Joules

34. What is the name of the osteoarthritis deformity seen in the image?

DIP involvement
OSTEOARTHRITIC
↳ HEBEDREN NODES
* BOUCHARD NODES

MC involved
knee Joint
1. T.K.R
2. intra-articular STEROIDS

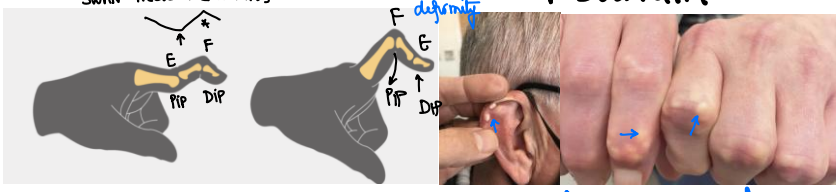
a. Dupuytren's contracture
b. Swan neck deformity
c. Heberden's nodes
d. Boutonniere deformity

RHEUMATOID ARTHRITIS

MTX + SULPHASALAZINE + HCQ

SWAN NECK DEFORMITY

BOUTAINNIERE



* acute gout

1st M.T.P joint

PODOLAGIA : Indomethacin

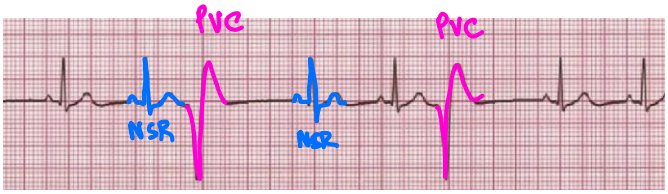
* Genu Varum

Bow legs

Chronic gout → TOPHI deposits *

febuxostat | allopurinol

35. Patient with cardiomyopathy and heart failure findings is on digoxin. He latest ECG is shown below. Physician is likely to order which drug for this patient?



V. bigeminy

MC arrhythmic d/t digoxin Toxicity

digoxin: HR ↓ : P-R interval ↑ : ST segment ↓

a. Lignocaine IV

b. Sotalol

c. Quinidine

d. Amiodarone

Class III

BINDAS

- Bretylium
- ibutilide
- Dronedarone
- Amiodarone
- Sotalol

Class IA

Quinidine

procainamide

disopyramide

↓

T.D.P

36. What is the likely diagnosis of this case?

* Ecchymosis

* Bruising

BROAD purple STRIAE

Cushingoid appearance

a. Cushing syndrome → CORTISOL ↑

b. PCOD

c. Acromegaly

d. Conn Syndrome

? Cushing

♀

* HYPOKALEMIC M. ALKALOSIS
* IGT
* HIRSUTISM, dysmenorrhea
* wt gain

? PCOD

S = STEROID : Exogenous cause

O = Oat cell ca lung

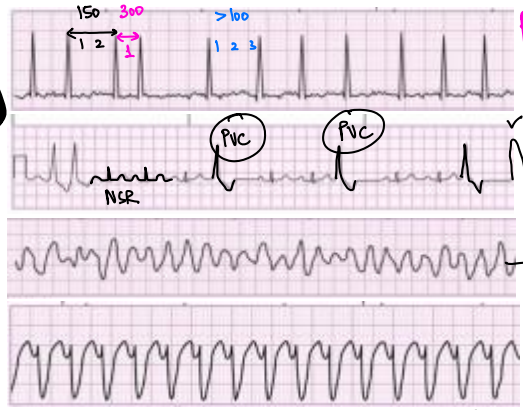
A = Adrenal Adenoma

* P = Pit. Adenoma ⇒ Cushing disease

endogenous

IOC ⇒ Midnight salivary CORTISOL : ↑ plasma

37. The four dysrhythmias' ECGs are given below. Which of the following can lead to development of embolic stroke?



P wave ⊖ : A·FiB^N

: VT

>3 PVC, HR >100

→ V·FiB^N

→ VT

AIS

NOAC

Apixaban

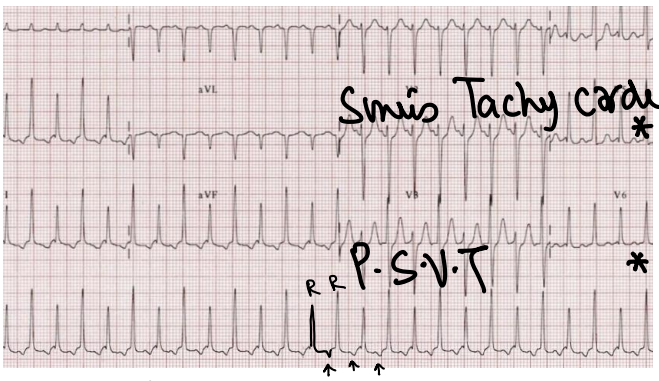
dabigatran

warfarin

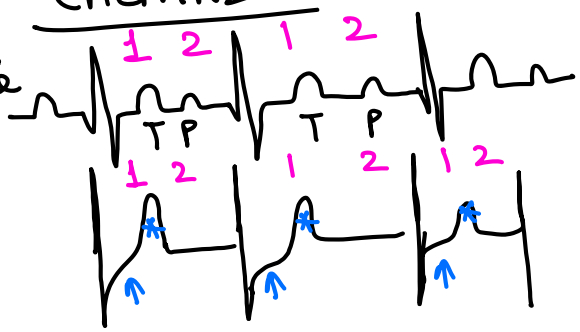
* MC Type of sustained Tachy A: A·FiB

* " " " STROKE : EMBOLIC STROKE | A·I·S

38. A nursing student is using coffee and energy drinks to stay awake. He comes to the ER with fluttering feeling in the chest. What is the ECG rhythm shown below



CAFFINE



* Hidden P wave

* ST ↓ * narrow qRS

a. Atrial flutter

(b.) PSVT

c. Sinus rhythm with premature ventricular contractions

d. Ventricular tachycardia

Pill IN THE Pocket

Rx: PSVT

1° → Catheter ablation > verapamil

≤ 90/60 → Syn. DC SHOCK 120J – 200J

> 90/60 → Carotid sinus Massage

Face ice pack

modified valsalva maneuvr

fast

iv Adenosine 6mg, 12mg
+ Normal saline 20 cc push

Self-TERMINATION

* Vomiting * ICE cold H_2O : face, drinking

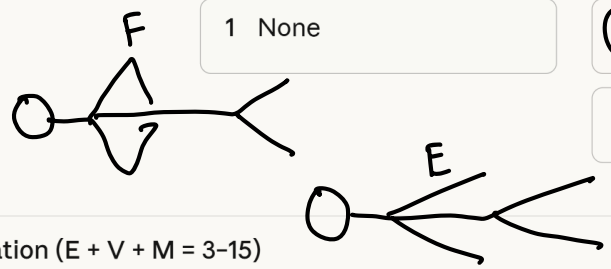
Young pt : STRUCTURAL NORMAL

39. You are evaluating a patient post a neurosurgical procedure. The patient opens her eyes in response to a loud voice, localizes pain and is confused and disoriented. What is the GCS score of this patient?

a. E3 M5 V4
b. E3 M6 V5
c. E4 M4 V5
d. E3 M5 V5

Eye opening (E)	Verbal response (V)	Motor response (M)
4 Spontaneous	5 Oriented Time, space person	6 Obeys commands
3 To voice Command	4 Confused disoriented: any 1	5 Localises to pain
2 To pain nail bed +	3 Inappropriate words	4 Withdraws from pain ✓
1 None	2 Incomprehensible sounds	3 Abnormal flexion (decorticate) ✓
	1 None	2 Extension to pain (decerebrate) ✓
		1 None

GCS-P *



Score interpretation (E + V + M = 3–15)

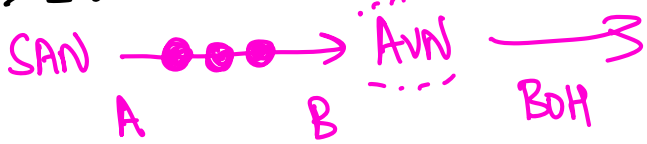
13–15	9–12	3–8
Mild / normal	Moderate	Severe / coma ≤ 8

Intubated/aphasic patients: record T (tube) or A (aphasia) for V — e.g. E3VTM4

Maximum score = 15 (fully conscious) · Minimum = 3

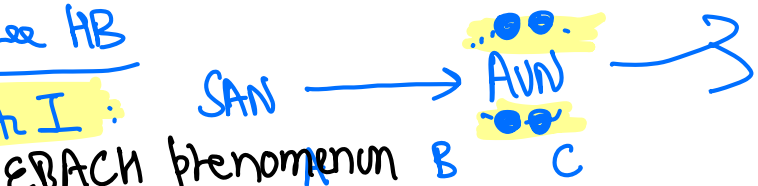
MARATHON
1. High vagal Tone
2. Aschoff nodules
3. Sarcoidosis
4. Hemochromatosis

1st degree HB

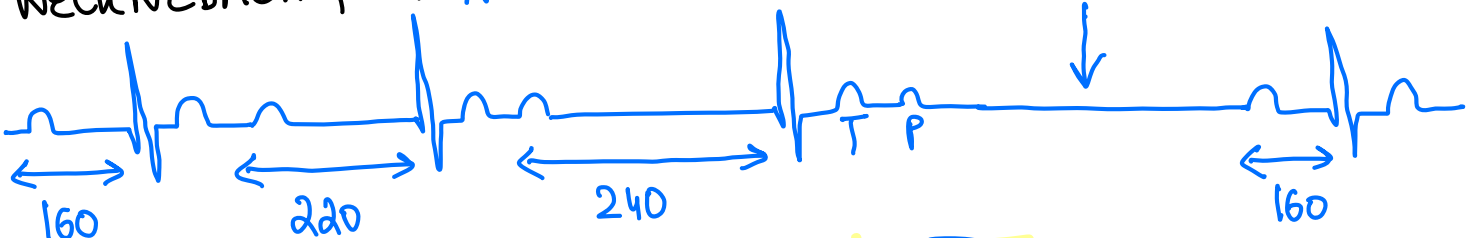


2nd degree HB

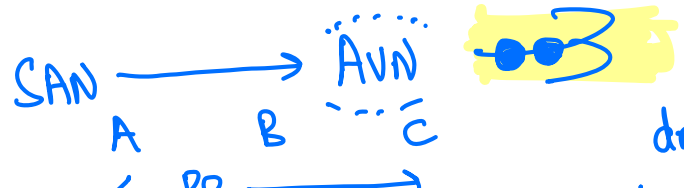
Mobitz I : WENCKEBACH phenomenon



dropped beat
missed beat

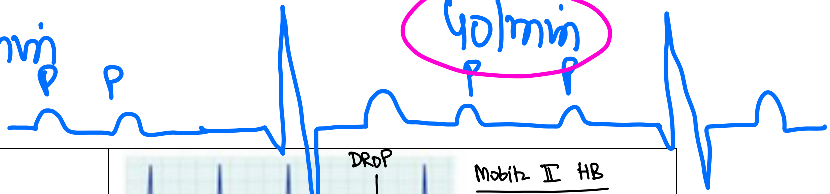


Mobitz II



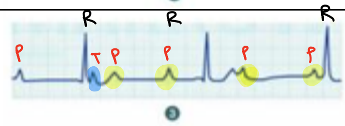
dropped beat

SAN → ~~AVN~~ → BOH
Atrial Rate P = 100/min
Ventricle Rate 40/min
Ro antibody



3rd degree
STOKES Adam Syn
Complete HB
AV dissociation

40. Match the following:

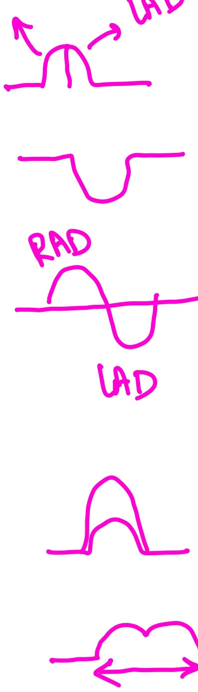
First-degree heart block A	 Mobitz II HB
Mobitz type 1 heart block B	 1st degree HB PR > 200 msec
Mobitz type 2 heart block C	 3rd degree HB
Complete heart block D	 SERIAL ↑ of PR : MI WECKNEBACH

geriatric
neonate
mother: SLE

a. 1-a, 2-c, 3-b, 4-d
b. 1-c, 2-a, 3-d, 4-b
c. 1-b, 2-d, 3-c, 4-a
d. 1-d, 2-b, 3-a, 4-c

neonatal lupus : Ro antibody
fetal ♡ : AVN # : Complete H. block
bradycardia
Sluggish neonate, MORO Reflex ↓

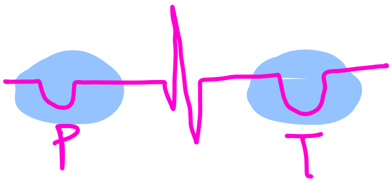
41. In a normal ECG obtained from a patient, a biphasic P wave maybe seen in which of the following lead (s)?
a. Leads II and V2
b. Leads II and V1
c. Lead V1
d. Lead V5



R.A.D LAD

P wave : < 2.5mm, < 120 msec (height)

P wave : ⊖ : aVR :



RAD LAD

P wave : V1

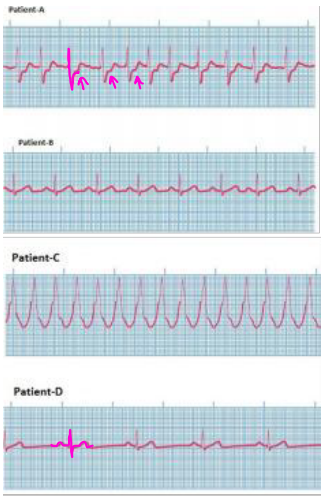
> 2.5 mm: P- pulmonale : RA enlargement

> 120 msec : P- mitrale : LA enlargement

High altitude : → ch. mountain sickness : MONGE' disease
① PAH , HYPOXIA → Epo ++ : RBC COUNT ↑

② SECONDARY POLYCYATHEMIA
SLUGGISH CIRCULATION

42. Based on the provided ECG readings, for which patient is likely to be on digoxin?



ST↓

NSR

V.T

a. Patient A
b. Patient B
c. Patient C
d. Patient D

Acute mountain sickness
* HYPOBARIC HYPOXIA
* HAPE — HACE
1. Immediate DESCENT
Till from where symptoms first symptoms
2. GAMOW BAG
3. O_2 : 6L/min *
4. PE : NIFEDIPINE
5. CE : DEXAMETHASONE *

Non cardiogenic pulm. edema

digoxin
PR↑
ST↓

0.5 - 2ng/mL
>2ng/mL

digoxin Toxicity
V. Bigeminy : IV lignocaine
NSR PVC NSR PVC NSR PVC
monomorphic V.T
BP↓↓ = defibrill
BP > 90/60
amiodarone

FIRST ODER kinetics
dose↑: Benefit↑
ZERO-ORDER kinetics
dose↑: side effects

PHENYTOIN 10-20 µg/mL : >20 : ATAXIA
VALPROATE
LITHIUM : 0.5-1.5 meq/L
→ TREMORS, NDI

Q. NDI → THIAZIDE
Q. lithium induced NDI → AMILORIDE
CDI: DESMOPRESSIN (ADH↓)

narrow therapeutic Range — digoxin, AED, lithium, Theophylline

* Bipolar I: MANIA → DIGFAST: < 7days, >3: MOOD ELATED, >4: MOOD depression
II: HYPOMANIA + M.D.D > 2weeks → SIGECAPS

P.D.D ⇒ >2yrs

(aggressive) 1. BZD: lorazepam
2. valproate
3. lithium : DOC M.D.P

* RUN Amok ⇒ MARIHUANA / Cannabis

SAH 

WORST HEADACHE of my life + nuchal Rigidity

WONG BAKER PAIN Rating SCALE

↓

B.N.P

B-Type NATRIURETIC peptide

NATRIURESIS : salt & H_2O loss

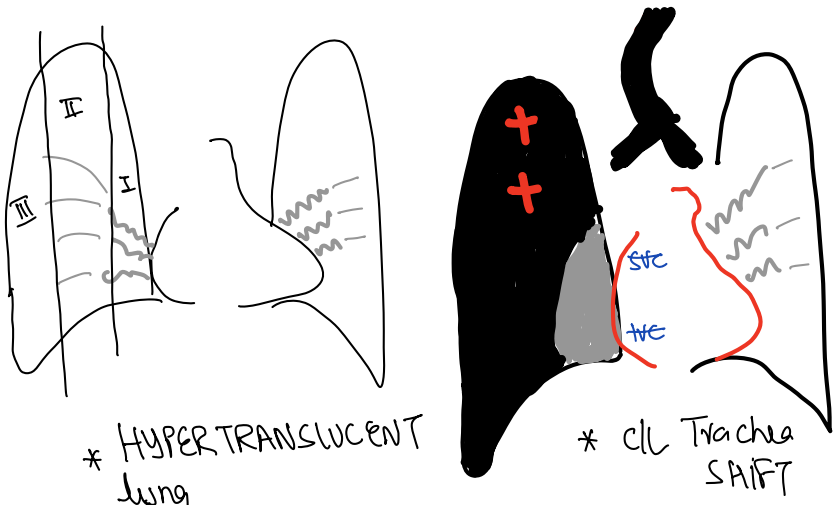
TBW ↓ TBS ↓

CEREBRAL SALT WASTING SYNDROME

HYPOVOLEMIC	Na ↓ EUVOLEMIC	HYPERVOLEMIA
TBW ↓ TBS ↓	TBW ↑ TBS n	TBW ↑↑ TBS ↑
1. DIARRHEA 2. VOMITTING 3. FISTULA (ENTEROCUTANEOUS) 4. C.S.W.S	SIADH ↓ Oat cell Ca lung	CHF : FUROSEMIDE CLD : Spironolactone CKD : THIAZIDE Ascites
ORS RL * NS + KCL	FLUID RESTRICTION Salt capsules TOLVAPTAN	S/R diet

< 125 : SEIZURES

Rx : 3% saline



* HYPERTRANSLUCENT lung
* ABSENT VASCULAR MARKINGS

* CIL Trachea SHIFT

TENSION pneumothorax *

1. BP ↓↓, mediastinal shift, JVP ↑
2. OBSTRUCTIVE SHOCK: SVC # IVC # P.E.A *
3. → ABSENT Air entry, absent B. sounds HYPERRESONANT NOTE

Rx: WIDE BORE needle INSERTION

adult: 5th ICS, Ant To mid axillary line
2nd ICS, lateral // mid clavicular line

child: 2nd ICS, // // // // //

\+ I.C.D TUBE, 5th ICS, Δ of safety

\+ UNDER H_2O SEAL drainage

PEA ⟹

C.T.	T.P	PULM EMBOLISM
Muffled S_1S_2	⊖ Air entry	DVT evidence
BP ↓↓	BP ↓↓	BP ↓↓
JVP ↑ non pulsatile	JVP ↑	JVP ↑

Pericardiocentesis	Wide bore needle + Chest Tube	ALTEPLASE

43. An elderly woman is rushed to the ER following an episode of syncope. Her caretaker reports that the patient had multiple episodes of loose stools and vomiting for the past 2 days. Work up is shown below. What is the next best step in the management of this patient?

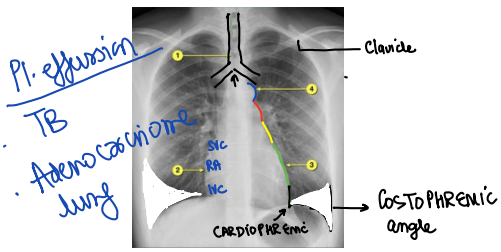
Serum sodium: 130 mEq/L ↓
Serum potassium: 2.8mEq/L ↓
Serum chloride: 100 mEq/L (n)
Blood urea nitrogen creatinine ratio: 30 ↑ dehydration

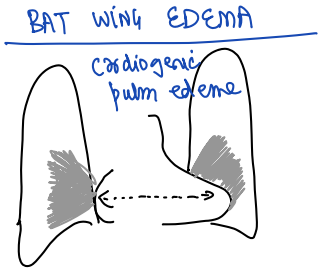
a. Asses BP, give NS with KCL 40 meq/L
b. Asses ECG and give KCL via central line 20meq/ hr
c. Asses BP and give 3% saline bolus over 30 minutes
d. Asses ECG and give KCL via peripheral line 40 meq/Hr

Na ↓ = HYPOVOLEMIC HYPONATREMIA : TBW ↓ TBS ↓ : NS/RL
diarrhea, vomiting
= EUVOLEMIC : TBW ↑ TBS (n) = SIADH : Fluid Restriction / Salt Capsules / VAPTANS
= HYPERVOLEMIC: TBW ↑↑ TBS ↑ = CHF

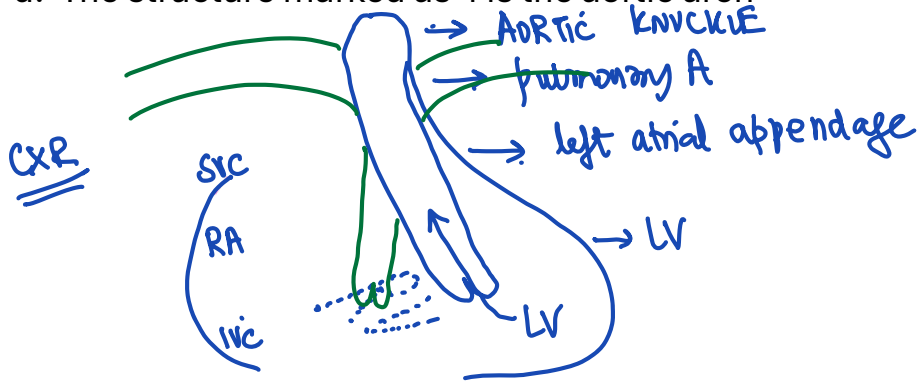
* fluid Restriction
* THIAZIDES

44. A 37-year-old man, with no known medical illness, came for a routine medical check-up. His chest radiograph is presented to you. Identify the incorrect statement with respect to the X-ray shown below.





a. The structure marked as number 2 is right ventricular border
b. The structure marked as 1 is the trachea
c. The structure marked as 3 is the left ventricular border
d. The structure marked as 4 is the aortic arch



RV doesnot form Right ♡ border

45. A nurse is caring for a patient diagnosed with rheumatoid arthritis. Which assessment finding does the nurse expect to assess?

a. Asymmetrical pain in the large weight bearing joints
b. Low back pain and stiffness that is worse in the morning
c. Pain, swelling and redness of the great toe
d. Symmetrical pain and swelling in the small joints of the hands

OA : >50yr, knee pain, DIP: HEBEDREN NODES
Rheumatoid : 25yr: morning stiffness: PIP, MCP, WRIST
Rheumatic : 5-15yr: ASO TITER ↑: migratory polyarthritis
gouty A : >50yr: ♂: HTN: THIAZIDE : 1st MTP
ATT drugs, alcohol + nonveg PODOLAGIA
Ankylosing Spondylitis HLA B27 +, SACROILITIS
Young ♂, morning stiffness, low backache

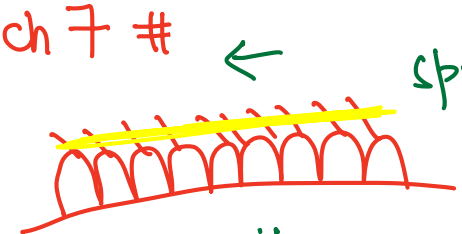
46. A 48-year-old female patient with history of T2DM presents to the clinic with complaints of polyuria, polydipsia and weight- loss over the past month. On physical examination, she is alert and oriented but appears dehydrated. Her blood pressure is 140/90 mmHg, heart rate is 110 bpm, respiratory rate is 16/min and temperature 37.8°C (100°F). Labs show elevated fasting blood glucose levels and HbA1c levels. The nurse suspects diabetic ketoacidosis (DKA). What is the priority nursing intervention?

a. Administer intravenous insulin infusion
b. Start an intravenous line and obtain blood for laboratory tests
c. Assess the patient's urine output and ketone levels
d. Administer intravenous fluids to correct dehydration +/-

RBS > 250, KETONEMIA, ABG: HCO_3 < 15
KETONURIA

47. Which of the following is not seen in cystic fibrosis?

CFTR protein, AR, ch 7 #
MUCOVISCIDOSIS
URT secretion THICK: SINUSITIS



CF | MUCOVISCIDOSIS

AR, ch 7

CFTR gene ✓

CFTR protein

EXOCRINE gland: SECRETIONS: THICK

PRENATAL Δ of CF

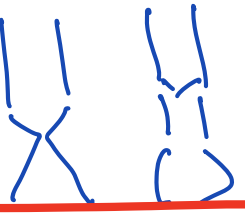
* CHORIONIC VILLUS sampling 10-12wks
* AMNIOCENTESIS
* CORDOCENTESIS

1. MECONIUM ILEUS : delay in passage of meconium
   ↓ (paralysis of gut)
   GASTROGRAFFIN ENEMA : IOC | TOC

2. R. pneumonie episodes : death < 1 yr
   [TOBRAMYCIN Nebulization weekly basis
   prevent colonization of airways by bacteria]

3. amylase ↓ ⇒ OSMOTIC DIARRHEA
   lipase ↓ ⇒ STEATORRHEA
   Vit A ↓ : Nyctalopia, BITOT spots
   D ↓ : RICKETS: GENU VARUM
   E ↓ : ATAXIA
   K ↓ : bleeding
   PURPURA

XIB



SWEAT CHLORIDE TEST
> 60 meq/L x 2 Reports

Klinefelter : 47XXY : ANEUPLOIDY ← 45XO: TURNER

Tall ♂

MR

Small Testis

gynaecomastia

SHORT STATURE

* Webbing neck
* Widely spaced hypoplastic nipple
* infantile UTERUS
  STREAK OVARIES

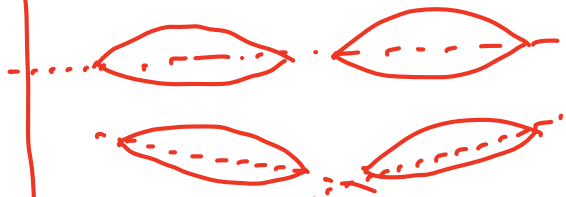
Tall male, large Testis, MR ⇒ fragile X syn

* HORSE SHOE kidney
* BAV > CoA

1. Tall male : Arm span > Ht
2. Arachnodactyl
3. THUMB SIGN +
4. death : → AORTIC DISSECTION
5. ♥ → AORTIC Root dilatation: AR
   Mitral valve prolapse

Ch 15 #, FMR-1 gene, Fibrillin-1

MARFAN SYNDROME *



OUTER CANTHUS
Mongoloid slant eyes

♥ : Endocardial cushion defect

DOWN syndrome
TRISOMY 21

ANEMIA

Hb < 11 gm%

10–11 | 7–10 | < 7

Pallor : ⊕ : PALMAR CREASES, NAIL BED, Conjunctiva
SOLE
Tongue

DARKER = No Anemia
LIGHTER = Anemia

CEREALS : PHYTATES, TANNIC Acid
Bioavailiability : < 10% of iron : MCHC
IDA

MCH = 20–28 pg
MCV = 80–100 fL

MCV < 80 MCH < 20	MCV = ⓝ MCH = ⓝ RBC cont: ↓	ANEMIA MCV > 100 fL B12 ↓ : HYPERPIGM of IP Joints PERIPHERAL NEUROPATHY
MCHC S: Sideroblastic A I: IDA T: THALASSEMIA A: ACD* L: lead poisoning	1. C.K.D 2. AIHA : SLE : Ro: photosensitivity 3. ACD**	folic acid ↓ FETUS: NTD Anti nuclear A/b, neonatal lupus

PAINT, BURTONIAN line: gums (blue), P.S: ⊙⊙⊙⊙⊙
lead pencil donot cause lead poisoning
BASOPHILIC stippling RBC

defect · types · # muco-ciliary escalator STASIS

earliest: Meconium ileus

pancreatic juice: lipase ↓ : Steatorrhea

THICK · K ↓ · bleeding ⊕ · * Recurrent pneumonia · LRT

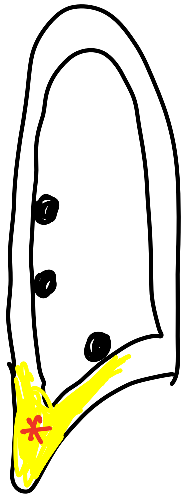
a. Meconium ileus
b. Biliary atresia
c. Bleeding diathesis
d. Nasal polyposis

48. A 45-year-old female patient has stiffness in the joints of the hands for the past 6 years. On examination, the following deformity is noted. Serology is positive for anti-CCP antibodies. Which of the following are associated with this condition?

* RHEUMATOID A

RHEUMATOID Nodules

* OLECRANON PROCESS
* WRIST
* lungs



B/L: PIP, MCP, WRIST, B/L * involvement

1) Pleural effusion
2) Anaemia of chronic disease · NCNC > MCHC
3) Swan neck deformity and Boutonniere deformity
4) Uveitis
5) Seizures

a. 1, 2, 5
b. 1, 3, 4, 5
c. 1, 2, 3
d. 4, 5

* MCV = n
* MCH = n
* RBC COUNT: ↓

MICROCYTIC HYPOCHROMIC A

NCNC Anemia

(A) CKD: Epo ↓ : NCNC

(B) A.I.H.A · SLE

49. What is the most common neurological manifestation seen in patients with systemic lupus erythematosus?

(C) ACD → RA, UC, CD

a. Seizures
b. Depression
c. Cognitive impairment
d. Polyneuropathy

SLE: ♀ : ♂ = 6 : 1

SLE: SELENA GOMEZ : CALM-OUT
↳ LUPUS NEPHRITIS : death

ANA ⊕ : Most sensitive Test

ENTRY LEVEL CRITERIA · LG FEVER

1. (MC) : MUSCULOSKELETAL : MYALAGIA & Arthralgia

2. PHOTOSENSITIVITY
3. PALOR ⊕ : NCNC
4. lupus CEREBRITIS: cognitive
5. lupus NEPHRITIS impair M

50. Which of the following statements is false about Raynaud's phenomenon?

a. Secondary Raynaud's is associated with more severe symptoms — True
b. Secondary Raynaud's develops predominantly after the age of 30 years — True
c. Primary Raynaud's is usually ANA negative — True
d. Primary Raynaud's is associated with digital tissue necrosis and ulcers — TAD

gloves +
Rx: CCB

Raynaud phenomenon

COLD H_2O → FINGER TIPS
Ab (n) vasospasm = WHITE
deoxy Hb ↑↑ = BLUE
Ab (n) VD = RED

1° idiopathic — ANA +
2°: associated ∈ SLE ↑ SCLERODERMA

51. A 23-year-old woman presents to the emergency department with seizures. Her parents said this started 15 minutes back and has been continuous. Initial resuscitative measures are taken and she is given lorazepam. However, her seizures didn't subside. Which antiepileptic drug is indicated now? *

a. Propofol
b. Phenytoin
c. Phenobarbitone
d. Pregabalin

GTCS | GCSE
* SEIZURES > 5 minutes
1. iv. lorazepam
2. IV lorazepam
3. IV phenytoin diluted in NS: 20 min

* UGIE
* day care procedure
* Rapid sequence intubation

Neonatal seizures: HIE: phenobarbitone

P.I.V.D
L4-L5
SCIATICA → RADICULAR PAIN
Rx: GABAPENTIN or PREGABALIN

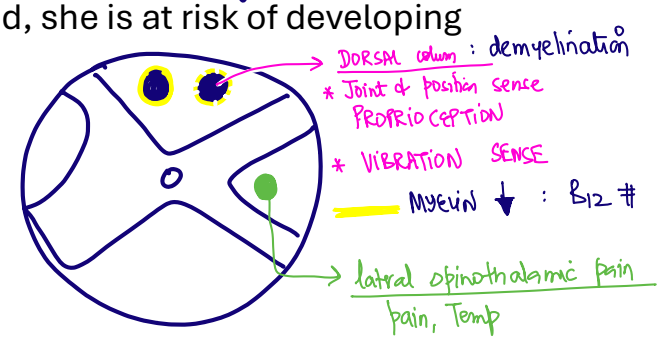
: MC site → Lancinating pain → Rx: Carbamazepine / gabapentin / PREGABALIN

TRIGEMINAL NEURALGIA

52. A 50-year-old woman complains of numbness of her hands, generalized weakness and easy fatigability. She is a vegetarian. She looks very pale and her peripheral smear reveals macrocytic hypochromic anaemia. If untreated, she is at risk of developing which of the following conditions?

B12 myelin

a. Proprioceptive loss
b. Stabbing pain
c. Temperature loss
d. Burning pain



53. A patient with SIADH is being treated with water restriction. Which findings indicate that the treatment is effective?

a. Increased urine output, decreased serum sodium levels and elevated urine specific gravity
b. Increased urine output, increased serum sodium levels and reduced urine specific gravity
c. Reduced urine output, increased serum sodium levels and reduced urine specific gravity
d. Reduced urine output, decreased serum sodium levels and elevated urine specific gravity

54. Which patient is at the highest risk for developing aspiration pneumonia?

a. An infant who recently underwent repair of a tracheoesophageal defect
b. An alert 10-year-old with cystic fibrosis
c. A 50-year-old with fractured ribs and a broken leg from a motor vehicle accident (MVA) FLAIL CHEST
d. A confused 75-year-old with history of a cerebrovascular accident VA)

gag Reflex ⊖
Cough Reflex: ⊖

1. PD
2. AD
3. HD
4. STROKE

AIS ← A.FIB

Hemorrhagic ← HTN CRISIS

* >180/120 + TARGET ORGAN damage

* AIS ⇒ ALTEPLASE

Window PERIOD

STEMI : < 12 HOURS *

ASTHMA : RHONCHI EXPIRATORY
SPIROMETRY: FEV_1 ↑ > 12% on B.D

COPD
E GOLD stages, mMRC dypnea
CB SPIROMETRY: FEV_1 ↑ : < 12% on B.D

Bronchiectasis PURULENT Bronchorrhea

PNEUMONIA Bronchial Breathing, dull note

PLEURAL effusion distant breath, stony dull sound

pneumothorax
↳ ⊖ Air entry , HYPER-Resonant
⊖ breath sounds

PLEURITIC CHEST PAIN
TURN pt TO side of lesion *
IBUPROFEN/ PCM
ARDS: PRONE POSITION *

Cystic Fibrosis → destruction & dilatation of large airways filled c pus → POSITIONAL PURULENT BRONCHORRHEA

* ALTEPLASE ≤ AIS : < 4 hour
≤ Pulmonary Embolism

55. How should the nurse interpret the finding that a patient with bronchiectasis has expectorated three cups of foul-smelling, mucopurulent secretions in past 24 hours?
   a. A secondary infection has developed
   b. The disease process is improving
   c. The patient is displaying typical symptoms of condition
   d. Chest physical therapy requires adjustment to meet the patient's needs

56. Acute Respiratory Distress Syndrome can develop due to direct lung injury or indirectly through systemic inflammatory response syndrome (SIRS). The nurse understands that ARDS is most commonly associated with which of the following conditions?
   a. Sepsis
   b. Oxygen toxicity
   c. Prolonged hypotension
   d. Cardiopulmonary bypass

ARDS: NON Cardiogenic pulm edema
1. PNEUMONIA
2. SEPSIS
3. TRALI
4. MENDELSON SYN: Aspiration of stomach Acid
5. PULM. CONTUSION
6. TOXIC GAS INHALATION

BERLIN CRITERIA
(A) paO_2/FiO_2 RATIO : < 300
(B) CXR: BIL INFILTRATES
(C) Echo: HEART FUNCTION: (N)

Rx: 1. PRONE
2 Mechanical V: Tracheostomy/ E. TUBE
* PEEP: 5-8 cm H_2O : ↑ collapse of alveoli

Low TV

High PEEP

* Tidal volume ⓝ: 12 mL/kg
↳ 6 mL/kg

57. Which positioning is recommended for management of patients with paO2 / Fio2 ratio of 300 with CXR showing bilateral infiltrates?

ARDS

a. Supine
b. Reverse-Trendelenurg
c. Trendelenburg
d. Prone

58. AKIN and RIFLE criteria are used to classify:

a. Acute kidney injury
b. Chronic renal failure
c. Acute glomerulonephritis
d. Nephrotic syndrome

59. What causes the glomerular damage seen in glomerulonephritis?

a. Proliferation of microorganisms within the glomeruli
b. Toxins produced by bacteria damaging the glomeruli
c. Deposition of immune complexes in the glomeruli
d. Breakdown of red blood cells circulating through the glomeruli

60. A patient with GBS is receiving plasmapheresis. What is the purpose of this treatment?

a. Reduce inflammation
b. Remove autoantibodies
c. Increase blood volume
d. Correct electrolyte imbalances

A.K.I

S.Cr: 0.8–1.2 mg/dL

Grade	S. CREATININE	+	U. output	hrs
I:	1.5 - 1.9 Times ↑ over baseline value OVER last 7 days	+	< 0.5 ml/kg/HR	6
II:	2.0 - 2.9 Times ↑	+	< 0.5 ml/kg/hr	12
III:	> 3.0 Times ↑	+	< 0.3 ml/kg/hr	24

grades

C.K.D : eGFR

- G_1 : > 90 ml/min/1.73m²
- G_2 : 60 - 89 ml/min
- G_{3A} : 45 - 59
- G_{3B} : 30 - 44
- G_4 : 15 - 29 → RRT → Hemodialysis / allogenic kidney Tx / 1st degree Relative
- G_5 : < 15 : End stg Renal disease → RENAL FAILURE → URAEMIA

Renal Replacement THERAPY

G_5 ↓

K ↑	Ht ↑
Poy ↑	calcium ↓

* Calcification of BV

A_1 : < 30 mg/day

24 hr U. protein : < 150 mg/day

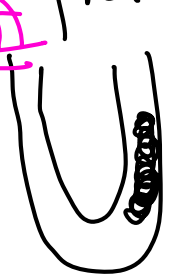
~~Glomerulus~~ < 30 mg/day albumin

TUBULES
Tamm Horsfall protein

A_2 : 30 - 300 mg/day : MICROALBUMINURIA

A_3 : > 300 mg/day

Screening for ↑ D. nephropathy



120 mg/day

Asc. LOH limb of

D.M: Type 2

2022: G_3 A_1

2026: G_4 A_3

CKD staging

→ ⊖ : (1.) ACEi* low dose: RAMIPRIL

slows the progression of disease

(2.) SGLT2i* : nephroprotective

EMPAGLIFLOZIN

(3.) FINRENONE* : //

CKD: eGFR < 60 ml/min x 3 months

CRITICALLY sick pt

ENTERAL feeding +

1. NG TUBE

(NOSE - TRAGUS - XIPHISTERNUM)

2. PERCUTANEOUS JEJUNOSTOMY

3. // GASTROSTOMY

4. T.P.N

* Subclavian vein: IJV
* P.I.C.C
* iv FAT – SUGAR – AMINO ACIDS
  25% D
* Refeeding syndrome

  KMP K+ ↓ Mg ↓ Poy ↓

61. A patient develops dyspnoea during a blood transfusion. What complication should the nurse suspect?

a. Hypoglycaemia
b. Transfusion-related acute lung injury (TRALI)
c. Hypokalaemia
d. Wound infection

MCC death AFTER B·T

* TACO

CKD, G4 A2 : scheduled for HD, Hb = 7gm/dL
2 units of whole blood : 4 HOURS
c/o SOB, p: 120/min BP: 160/100, B/L crepts (+)

✓ PRBC Tx ✓ 1 unit OVER : 4 HOURS

62. A 70-year-old lady with parkinsonism suffers from aspiration * pneumonia, with 3 episodes for the past 6 months. X ray shows bibasilar bronchiectasis. Moderate oro-pharyngeal dysphagia is present and had poor cough reflex. What is the best appropriate step for long- term prevention of recurrent aspiration pneumonia?

a. High frequency oscillatory chest therapy
b. PEG gastrostomy tube insertion
c. Nebulization with N-acetyl cysteine to reduce secretions
d. Azithromycin for antibacterial prophylaxis and prokinetic effect

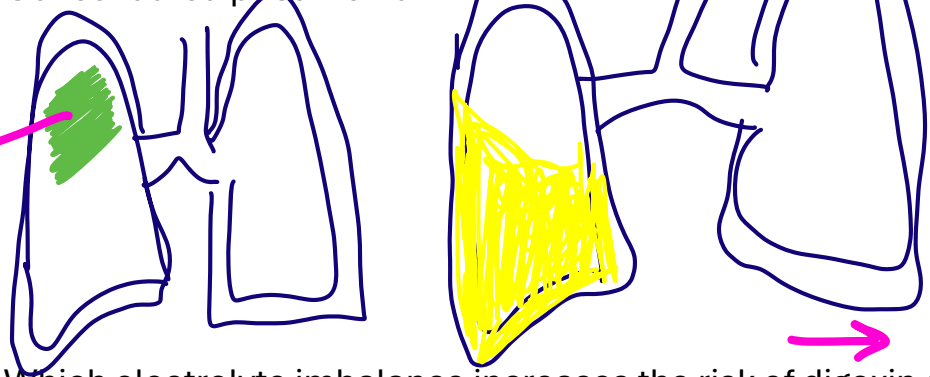
B·T → R·D ++

	B·T	R·D ++
pulse	↑↑	↑↑
BP	↑↑	(n)
JVP	↑↑	(n)
* BNP	↑↑	(n)
	TACO	TRALI

B-Type NATRIURETIC peptide

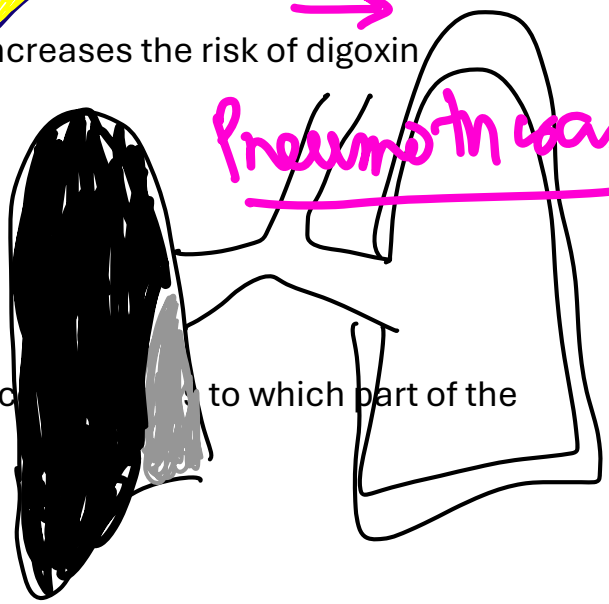
63. A patient with low-grade fever and weight loss has poor excursion on the right side of the chest with decreased fremitus, flatness to percussion and decreased breath sounds all on the right. The trachea is deviated to the left. Which of the following is the most likely diagnosis?

a. Pleural effusion
b. Pneumothorax
c. Chronic obstructive lung disease
d. Consolidated pneumonia



64. Which electrolyte imbalance increases the risk of digoxin toxicity?

a. Hyperkalemia
b. Hypokalemia
c. Hypernatremia
d. Hypocalcemia



65. The murmur of mitral stenosis c[illegible] to which part of the ECG?

a. P wave
b. ST segment
c. QRS complex
d. T wave

V. diastolic murmur *

. depolarization = atrial Relexation

atrial contraction = ventricular Relexation
when MS murmur occurs

Stage I: Wide local excision : 2mm clear margins

II: Breast conservative SX

III: Neoadjuvant chemo: MRM

IV: ↑ Toilet Mastectomy ✓

lumbar spine: V_x #

SBE: 7-10 days of cycle

Recurrence > prognosis

BREAST MOUSE

Fibroadenoma

↑

* Most aggressive BREAST Ca inflammatory Cancer

66. Which of these tumour markers is elevated in carcinoma breast?

a. CA-125 Ca ovary
b. CA-19-9 Ca PANCREAS
c. CA-15-3 Ca BREAST
d. CA-72-4

MC benign breast Tumor

malignant → invasive ductal carcinoma

(Peau d' orange app)

Screening * → Mammography: >40 yrs of age

Triple assement: Clinical + imaging + core Bx > FNAC

IOC ↑

67. An adult patient undergoing dialysis asks if he can take insulin before the dialysis treatment. Which statement about insulin and dialysis should the nurse include in the response?

a. Insulin levels are not reduced by haemodialysis.
b. Insulin enhances the effects of dialysis.
c. Dialysis destroys insulin.
d. Dialysis stimulates the production of insulin.

K+ H+ PO_4 ↑

UREA Cr ↑

insulin dose: 80% of calculate dose: C·K·I

68. A 47-year-old patient has Addison's disease; the nurse would expect to find which of the following during the nursing assessment?

a. A supraclavicular fat pad
b. A puffy face
c. Low blood pressure → HYPERPIGMENTATION palms | sole CREASES gingiva gums +
d. Ecchymotic areas

LYME: Tick: BORRELIA BURGODEFERI
facial N paralysis: BL
descending paralysis

* B_1: RBC TRANSKETOLASE activity ↓: WERNICKE'S

* B_6: RBC AMINO ASPARATATE activity ↓

* B_9: FIGLU Methyl alcohol poisoning: fomepizole + B_9

* B_{12}: MMA : cyanide Toxicity ⇒ Sod. Thiosulphate + B_{12}

Urine

B_{12} ↓: MMA levels ↑, homocysteine ↑

MCV >100 fL
FA ↓: Urine FIGLU ↑, Homocysteine ↑

69. An elderly patient on a vegetarian diet presenting with easy fatigability and pallor was investigated. Peripheral smear showed findings of macrocytic anaemia. Investigations reveal elevated serum homocysteine levels and normal serum methylmalonic acid levels. What is the probable cause of anaemia in this patient?

a. Vitamin B9 deficiency
b. Vitamin B12 deficiency → Methyl Malonic acid ↑
c. Vitamin B1 deficiency
d. Vitamin B6 deficiency

70. A nurse is supervising a student nurse providing tracheostomy care to a patient. Which action by the student should prompt supervising nurse to intervene?

a. The student nurse cuts the dressing to fit around the tracheostomy tube
b. The student nurse uses sterile technique while cleaning around the stoma
c. The student nurse applies a new tracheostomy dressing under the flange
d. The student nurse removes the inner cannula for cleaning

71. During the recording of EEG, a resting and awake person was instructed to close his eyes and then open them. The dominant wave which decreases on opening the eyes is:

a. Alpha
b. Beta
c. Theta
d. Delta

eyes closed : α : 8-13 Hz
eyes open : β : 13-30 Hz

NREM Stg I: 4-7 Hz : θ
II: sleep spinde
III: delta wave 0.5-4 Hz

REM :

SAW TOOTH: A.flutter

B.P.H

Transitional zone

60yr

poor urinary stream

dribbling of urine

*DRE: prostate ++

* USG Abdomen:

* Uroflowmetry

↓ flow ↑

Rx: Tamsulosin

FINASTERIDE

shrinks the prostate

↓

TURP

CBI: 3 way foley cath

↳ NS > glycine ☹ DW

absorption via periprostatic venous plexus: Na ↓ < 125 meq

WATER INTOXICATION

Screening:

Ca PROSTATE

Saw tooth

60yr

low backache

L-S spine #

DRE: nodularity

PSA velocity : > 4ng/dL

IOC

PSA, PAP, TRUS, DRE

PET-CT > MRI spine

Rx:- ~~TURP~~ ⊖

Radical prostatectomy ±

Hormone Therapy: → GOSERELIN

FLUTAMIDE

(TESTOSTERONE: leydig cells)

Batson plexus

P

L L

A

ER+:

Ca BREAST

↓

TAMOXIFEN

LMNL lesion

AFF

muscle spindle

EFFERENT

1. Flaccidity : Tone ↓
2. Fasciculations : Tongue ⇒ Motor neuron disease / ALS
3. ARREFLEXIA
4. ATROPHY

* FLAW

LMNL

[illegible]

UMNL / Pyramidal lesion | Corticospinal lesion

USB

1. Spasticity : ↑ Tone in antigravity
2. BRISK DTR
3. BABINSKI SIGN

(N) PLANTAR FLEXION

DORSIFLEXION (G) Toe
Fanning small Toes

LMNL	UMNL
FLAW	USB
fasciculations	Spasticity (clasp knife)
flaccidity	BRISK DTR : Clonus
areflexia	Babinski
Wasting	—
Sup Reflexes ⊖	sup. Reflexes ⊖

↑ ANAL Reflex ⇒ S_4, S_5 ↑

Spinal shock ↓ denovo

SCI : at level : LMNL
below level : UMNL [corticospinal injury]

T_{12} # : at level → flaccidity, areflexia
: below level → spasticity, DTR, babinski

Portable [illegible] ... Bics : flaccidity, areflexia

Spinal cord injury: above T6

Autonomic dysreflexia

Triggers: URINE RETENTION
fecal impaction
Bed sore +

* BP ↑ HR ↓
headache, flushed skin, pilo erection

Rx: 1. Check foley, Rectum status
2 High fowler, collar button open
3. HTN ⇒ SL NIFEDIPINE
200/100 IV CLEVIDIPINE
IV NTG

SHORTEST β BLOCKER
* LANDIOLOL
ESMOLOL

SHORTEST acting CCB

Post-Junctional

M.G

Ach Receptor ≠

♀ young
[PTOSIS] DIPLOPIA
diurnal variation of symptoms

PRE-JUNCTIONAL defect

Ach ↓

Lambert Eaton

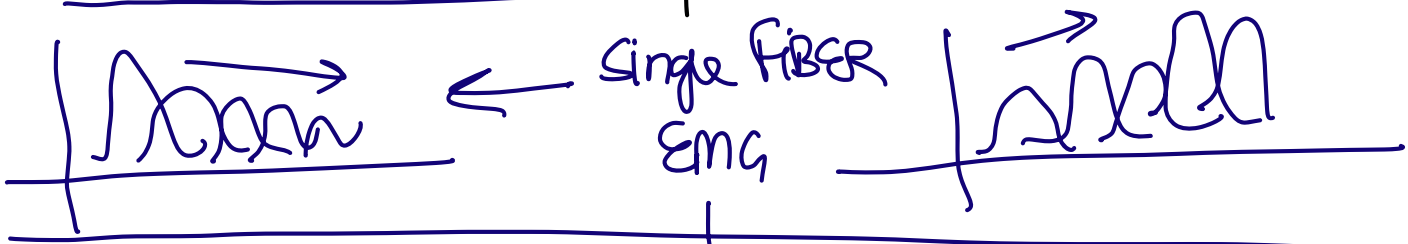
>50yo ♂ SMOKER
ARM | leg weakness
PTOSIS, DYSARTHRIA

evening +++++

DYSARTHRIA
NASAL Regurgitation of fluids
DYSPHAGIA (oropharyngeal)

diurnal variation of symptoms: improvement

INCREMENTAL Response



Pyridostigmine | 3,4 Aminopyridine

MG	LES
Post Junctional Receptor #	Pre Junctional defect
Ach (n) Receptor #	Ach ↓ Receptor (n)
AUTOIMMUNE Anti Ach (R) Ab	PARANEOPLASTIC : oat cell Ca lung Anti P/Q Ab
young ♀ decremental	PTOSIS DIPLOPIA DYSARTHRIA	Boys smoker incremental

Insulin ++ | 4AM | 7AM

* Somogyi ⇒ NOCTURNAL Hypoglycemia

glucagon, CORTICOL

Early morning Sugar ↑

GH, Catecholamines

72. A resident doctor ordered procalcitonin for patient with suspected ventilator-associated pneumonia and was on empirical antibiotic therapy. What is the role of procalcitonin?

a. Differentiate fungal and bacterial causes
b. Diagnose VAP
c. To decide duration of antibiotics
d. To decide the empirical therapy

NEWS Score : sepsis

73. A 46-year-old man with history of T2DM presents with complicated UTI, urinalysis shows more than 40 WBCs. He is hypotensive and not responding to IV fluids. What would be the treatment of choice?

a. Meropenem
b. Amoxicillin-Clavulanate
c. Ceftriaxone
d. Norepinephrine

Pseudomonas

Pyelonephritis → Sepsis → Septic shock

74. Which of the following is the drug of choice for management of digoxin induced toxicity. Heart rate is 38/min with BP 70/50 mmHg with altered mentation?

a. Atropine
b. Digiband
c. Digitoxin
d. Lignocaine

Symptomatic Bradycardia

+ morwahmedicare@gmail.com

75. A 52-year-old man presents with acute onset of severe pain, redness, and swelling in the first metatarsophalangeal joint. Which of the following is the drug of choice for the management of this acute gout attack?

a. Xanthine oxidase inhibitor
b. Microtubule polymerization inhibitor
c. COX -1 inhibitor
d. Uricosuric drug

Indomethacin
Allopurinol: CI: in acute gout
→ Colchicine
S/E: diarrhea

76. Which of the following drugs can cause black discoloration of the tongue?

a. Phenytoin
b. Sucralfate
c. Valproate
d. Lithium

P.U.D

Empagliflozin

77. A 55-year-old man with type 2 diabetes mellitus is started on an SGLT2 inhibitor for improved glycaemic control. Which of the following adverse effects is least likely to be associated with this drug class?

a. Euglycemic ketoacidosis ✓
b. Increased risk of genital mycotic infections
c. Hypoglycaemia when used as monotherapy
d. Increased risk of urinary tract infections ✓

GLUCOSURIA
CANIDA + ✓
SULFONYLURGAS : GLIPIZIDE

78. The following patch is used for which of the following patients?

POST-OP PAIN: fentanyl pump

Patch

CANCER pain < BUPRENORPHINE / FENTANYL

a. 10- year- old scheduled for bone marrow biopsy
b. 40 year old with breast cancer with spine metastasis
c. 65 – year old undergone total knee replacement
d. 85 – year old man with chronic severe osteoarthritis knee pain, already on high – dose oral opioids

79. The 5 – year old child consumed two bottles of strawberry flavoured paracetamol and became unconscious. Which of the following is toxic product responsible?

a. N- acetyl – p benzoquinone imine ← NAPQ1
b. N – acetyl – cysteine
c. Glutathione
d. Glutathione sulphate

ANTIDOTE
<8 HOURS of intake: 24 HOUR

80. You are managing a patient with reversible airway disease and have prescribed the following pressurized metered dose inhaler for management of acute exacerbations due to poor AQI. Which of the following is not a side effect of this drug?

Asthma
1. FEV_1 ↑ : >12%
2. FEV_1/FVC : <0.7

sym tf ↑SUGAR

a. Hypoglycaemia
b. Tachyphylaxis ✓
c. Hypokalemia ✓
d. Throat pain ✓

POOR AQI : L: ICS + LABA : as required
L: ICS + LABA : daily
M: ICS + LABA : daily
add: LAMA: Tiotropium

SEVERE* Acute asthma
Nebulizer: SABA | SAMA | MgSO4 | H

Most specific LFT

" " KFT

add: Omalizumab
Benralizumab
Acute asthma exacerbⁿ

AZOTEMIA

URAEMIA

Colonoscopy preparation : iron stopped 5-7 days before

2-3 days before: Avoid seeds, Fiber, green leafy vegetab

1 day: H_2O, coconut H_2O, clear soup

* PEG : in 1L OVER 4 HOURS : drink slowly
✓ 1/2 dose night before
✓ 1/2 dose 6 HOURS before
☹ Sodium phosphate enema : cleans only Rectum

MC UGi bleeding

LGi bleeding

MCC P.V.D

IOC H. pylori

UGIE : Propofol ⟶ ____ Color urine

* BIL INFILTRATES

Most Wetmeaning

1. BT | Pneumonia, Pancreatitis: ARDS
2. Mycoplasma, Chylamydia, legionelle
3. Silicosis
4. Tropical pulm. eosinophilia: MICROFILARIASIS
5. nitrofurantoin amiodarone

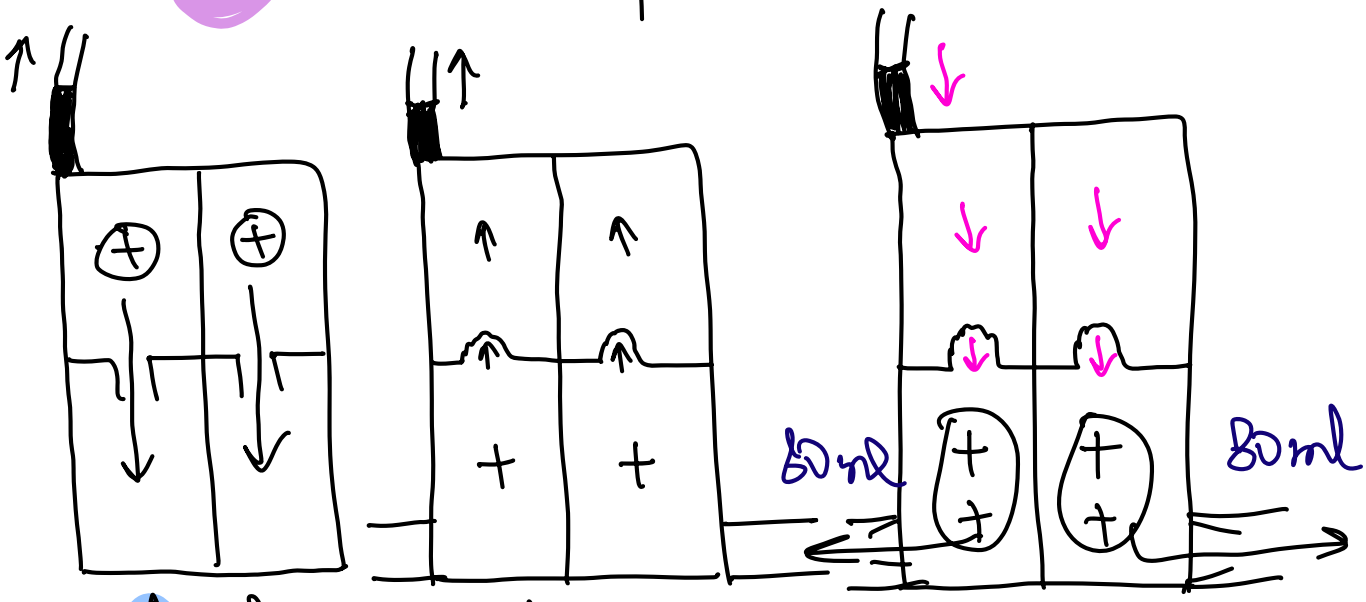
SLE: amiodarone
pulm. FIBROSIS

* Cardiac biomarkers: MI

< 1 HR: IMA
> 1-3 HR: HFABP
> 3-6 HOUR: Trop T/I
> 6 HRS: CPK-MB

* Reinfarction: >72 HOURS: CPK-MB
REINFARCTION: Trop T/I

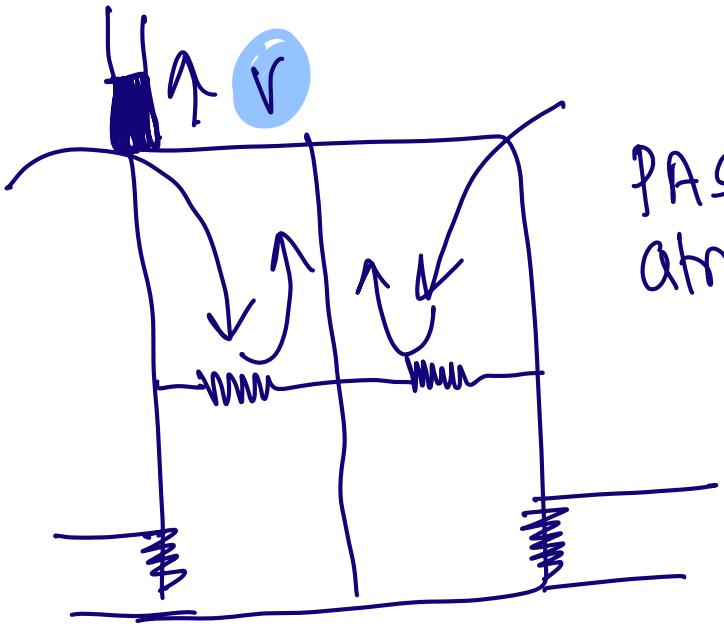
TACO		⇒	TRALI
P	↑		↑
BP	↑		(N)
JVP	↑		(N)
BNP	↑		(N)



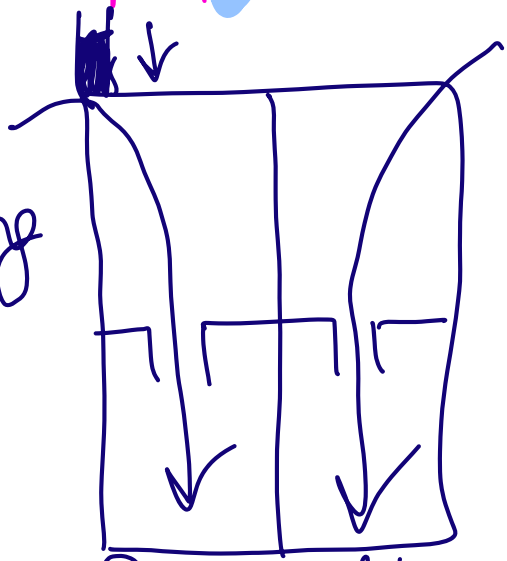
a: Atrial systole

c: IVC = bulge of Tricuspid valve

x = V. systole + atrial Relaxation

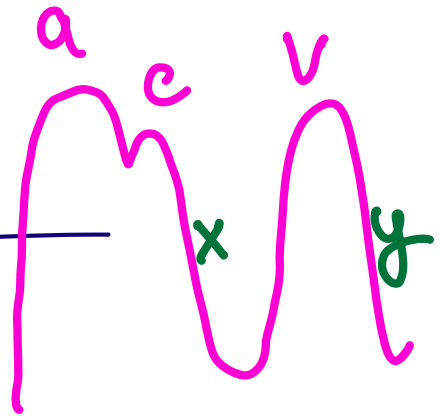


PASSIVE atrial filling

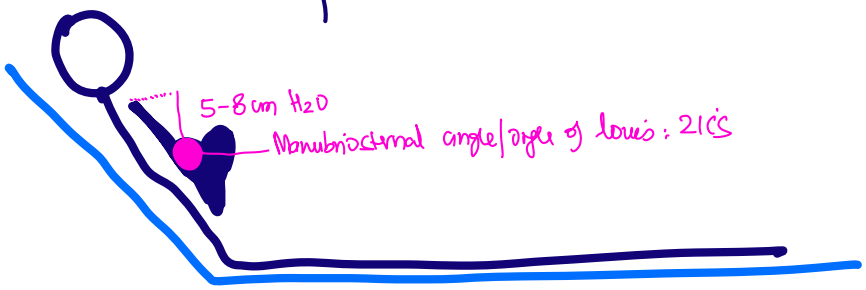


y = Rapid V. filling

+	a	Atrial systole
	c	IVC, bulge of TV
	V	PASSIVE atrial filling
-	x	Atrial Relaxation
	y	Rapid V. filling



JVP: Internal jugular



* JVP: falls on deep inspiration

JVP RISES " "

↓

Kussmaul sign

CCFs Restrict Right ♥

1. Constrictive PERICARDITIS
2. Restrictive Cardiomyopathy
3. Right sided Heat ♥

Non pulsatile JVP ↑

C. Tamponade

PCWP = 8-12 mm Hg

filling pressure of LA

LVF: PCWP ↑

RVF: JVP ↑

EDH
SDH
+ POSTURING ⇒ Burr hole Sx

* EDH ⇒ CRANIOTOMY + ligation of bleeders

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* SDH = Acute ⇒ craniotomy

White

Chronic ⇒ burr hole Sx

black